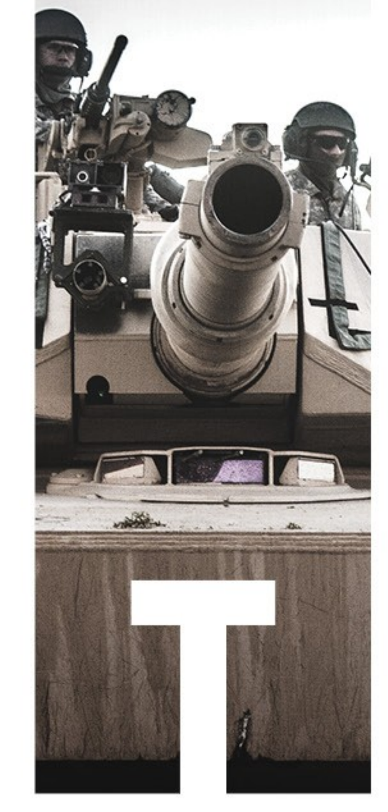





TSIS

TRAINING & SIMULATION INDUSTRY SYMPOSIUM

14-15 JUNE 2016

Rosen Centre

Orlando, FL











AFMC ACC-ORLANDO ARL-HRED-ATSD NAWCTSD PEO STRI PM TRASYS



PM TRADE

Scott Pulford

Acting Project Manager Training Devices (PM TRADE)



Business Opportunities Summary

Organization	Program	RFP Release	Award Date
PD DT	LCPM	4th Qtr FY16	1st Qtr FY18
PdM LTS	I-MILES	4th Qtr FY17	2nd Qtr FY18
PdM LTS	OSWV	2nd Qtr FY18	2nd Qtr FY19
PdM GCTT	Abrams ED/TT	1st Qtr FY17	4th Qtr FY17
PdM GCTT	CDT	TBD	TBD
PdM GCTT	JLTV	3rd Qtr FY17	TBD
PdM GCTT	Stryker MTS	1st Qtr FY17	4th Qtr FY17
PdM CTIS	JRTC-IS LE	TBD	TBD
PdM CTIS	MPC	3rd Qtr FY16	1st Qtr FY17
~~PdM GCTT~~	~~C-130J RWST~~		

Note: All Dates are Tentative

Acronym Key

LCPM - Life Cycle Product-line Management

I-MILES - Instrumentable - Multiple Integrated Laser Engagement System

OSWV – Opposing Force Surrogate Wheeled Vehicle

Abrams ED/TT – Abrams Engine Diagnostic and Troubleshooting Trainer

~~**C-130J RWST** – C-130J Reconfigurable Weapon System Trainers~~

CDT- Common Driver Trainer

JLTV – Joint Light Tactical Vehicle

Stryker MTS – Stryker Maintenance Trainer System (MT

Phase V

JRTC-IS LE – Joint Readiness Training Center Instrumentation System – Land Expansion

MPC – Mobile Production Center



Life Cycle Product-line Management (LCPM)

Description/Summary of Program Requirements

Provides life cycle management and hardware product line development in support of live training systems:

- The Digital Range Training System (DRTS) program comprised of the following range types: Digital Multi-Purpose Range Complex (DMPRC), Digital Multi-Purpose Training Ranges (DMPTR), Battle Area Complex (BAX), Digital Air/Ground Integration Range (DAGIR)
- Integrated Military Operation in Urban Terrain (MOUT) Training System (IMTS) comprised of the following range types: Urban Assault Course (UAC), Shoot house, Combined Arms Collective Training Facility (CACTF)
- Targetry Range Automated Control and Recording (TRACR); and Location of Miss And Hits (LOMAH)
- Homestation Instrumentation comprised of the following range types: Joint Pacific Multinational Readiness Capability – Instrumentation System (JPMRC-IS), Homestation Instrumentation Systems (HITS)
- Combat Training Centers: National Training Center (NTC), Joint Readiness Training Center(JRTC) & Joint Multinational Readiness Center (JMRC)

ACQUISITION STRATEGY

- Acquisition Strategy: Full & Open
- Contract Vehicle: Single Award IDIQ
- Contract Type: FFP, Cost, and T&M

PERIOD OF PERFORMANCE

- 5 years

MILESTONES

Sep 14	Oct 15	4th Qtr FY16	1st Qtr FY18
RFI Release	PALT Initiation	RFP Release	Contract Award

POINT OF CONTACT

Organization: PM TRADE

Phone: 407-384-5201
Email: usarmy.orlando.peo-stri.list.pm-training-devices@mail.mil

FUNDING

- OPA/OMA/RDT&E: Estimated $465 M is ceiling

CURRENT CONTRACT/ORIGINAL DEVELOPER/OEM (IF RECOMPETE)

- N/A



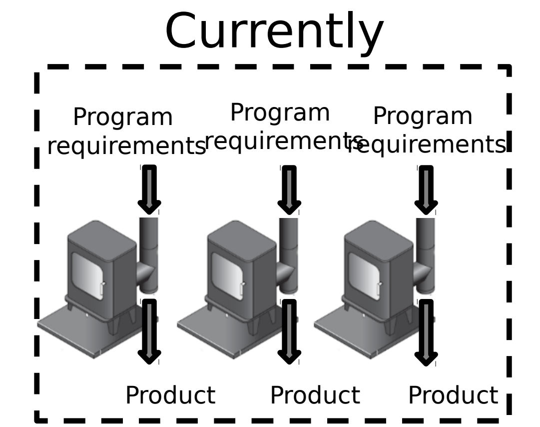
Life Cycle Product-line Management (LCPM)

- **LCPM will provide two main objectives for PM TRADE:**

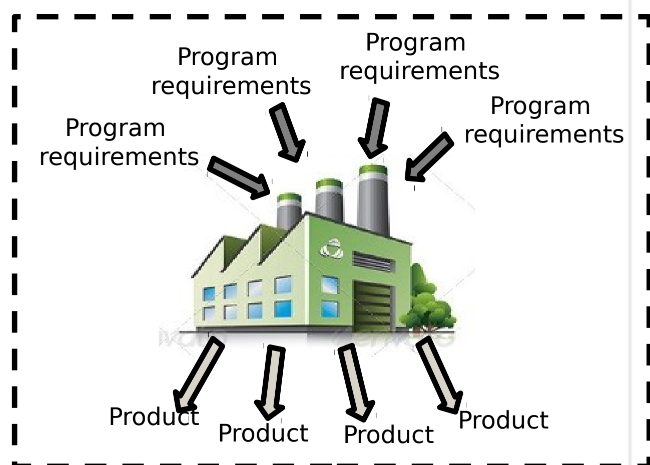
1) A single contract vehicle for programs to perform hardware centric lifecycle tasks.
   - Technology refreshment
   - Obsolescence management
   - Concurrency
   - Technology insertion
   - Upgrades
   - Disposal for LT2 systems
   - Support LT2 programs
   - Other DoD customers

2) Apply a product-line methodology, similar to the way Consolidated Product-line Management (CPM) Next does this for software centric tasks, to establish a Hardware Product Line (HPL)

Currently



LCPM





MILES Relevancy Contract

Evolving Weapons Platforms (JLTV, AMPV, ESR, M4A1+, etc.. Weapons PMs)

New Technology (PEOs)

ATESS Inc 1
(Architecture/Indirect Fire)
FY26-39

ATESS Inc 2
(Area Denial/CBRNE/ADA)
FY30-42

ATESS Inc 3
(Direct Fire) FY34-48

2015 | 2020 | 2021 | 2026 | 2027 | 2029 | 2031 | 2035 | 2038 | 2048

I-MILES BOI Complete Quantity Fielded ~ 204,639 Kits

EUL for WITS

EUL for TVS

EUL for IWS1, UCD, SLM

EUL for CVS

EUL for IWS2

EUL f

I-MILES Quantity Fielded by FY20 - 204,639 Vehicle, Dismounts, Ancillary Kits

IWS | UCD | SLM - AT4, RPG, BDM | WITS | TVS | CVS | VTESS

Instrumentable Versions

*WITS: Wireless Independent Targeting Sys (9,479 Kits Fielded – EUL 2021)
IWS1: Individual Weapons System (59,942 Kits Fielded – EUL 2026)
SLM: Shoulder Launched Munitions (5,912 Kits Fielded – EUL 2026)
TVS: Tactical Vehicle System (16,515 Kits Fielded) – EUL 2026
CVS: Combat Vehicle System (2,928 Kits Fielded) – EUL 2029
IWS2: Individual Weapons System (101,047 Kits Fielded) – EUL 2031
VTESS: Vehicle Tactical Engagement Simulation System (9,004 To be Fielded) – EUL 2033

STRATEGIC ISSUES

- *ATESS Increment 1 MS B in FY26-39*
- *ATESS Increment 2 MSB in FY30*
- *ATESS Increment 3 MSB in FY34 Direct Fire **fielding** starts in FY38 and completes in FY48*
- *Platforms and technology continue to evolve*
- *All fielded I-MILES systems will reach EUL before ATESS*



MILES Relevancy Contract

Description/Summary of Program Requirements

I-MILES is a critical component to “live” force-on-force training capability that impacts the overall training effectiveness for units to operate in a training environment. Ensuring the systems remain available, operational and concurrent with evolving technology for the next 30 years is essential.

The I-MILES Relevancy Contract is an effort to address I-MILES relevancy as the (1) systems approach end of useful life (beyond economically repairable), (2) weapon systems and technologies continue to evolve, and (3) Army - Tactical Engagement Simulation System (A-TESS) capabilities document approval is delayed.

The contract will address technology insertions, obsolescence issues, componentization efforts and the implementation of the Government owned software (LTEC) until A-TESS increment 3 around the FY38 timeframe.

ACQUISITION STRATEGY

- Acquisition Strategy: TBD
- Contract Vehicle: Multi Award – IDIQ
- Contract Type: TBD

PERIOD OF PERFORMANCE

- FY18-FY22
- 1 year base & 4 option years

MILESTONES

1st Qtr FY17	2nd Qtr FY17	4th Qtr FY17	2nd Qtr FY18
RFI Release	Industry Day	RFP Release	Contract Award

POINT OF CONTACT

Organization: PM TRADE

Phone: (407) 384-5201

Email: usarmy.orlando.peo-stri.list.pm-training-devices@mail.mil

FUNDING

- Estimated $49M OPA
- Estimated $40M RDTE

CURRENT CONTRACT/ORIGINAL DEVELOPER/OEM (IF RECOMPETE)

- Current I-MILES OEMs



Opposing Force Surrogate Wheeled Vehicle (OSW

Description/Summary of Program Requirements

This program supports the Combat Training Centers Opposing Forces/Center of Excellence (CTC OPFOR/COE) Pillar capability by providing OPFOR Surrogate Wheeled Vehicles (OSWV), technical vehicles, unique Visual Modifications (VISMODs), and Civilian on the Battlefield Vehicles (COB-Vs). This capability provides for an accurate replication of OPFOR and COB vehicle environment that rotational units must train against.

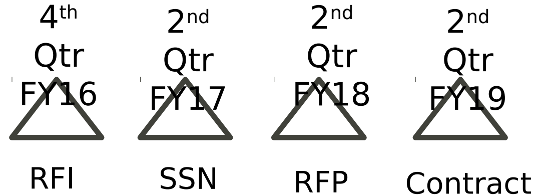
ACQUISITION STRATEGY

- Acquisition Strategy: Full & Open
- Contract Vehicle: TBD
- Contract Type: TBD

PERIOD OF PERFORMANCE

- FY19-FY23
- 1 year base & 4 option years

MILESTONES



POINT OF CONTACT

Organization: PM TRADE

Phone: (407) 380-5201

Email: usarmy.orlando.peo-stri.list.pm-training-devices@mail.mil

FUNDING

- Estimated $39M - $65M

CURRENT CONTRACT/ORIGINAL DEVELOPER/OEM (IF RECOMPETE)

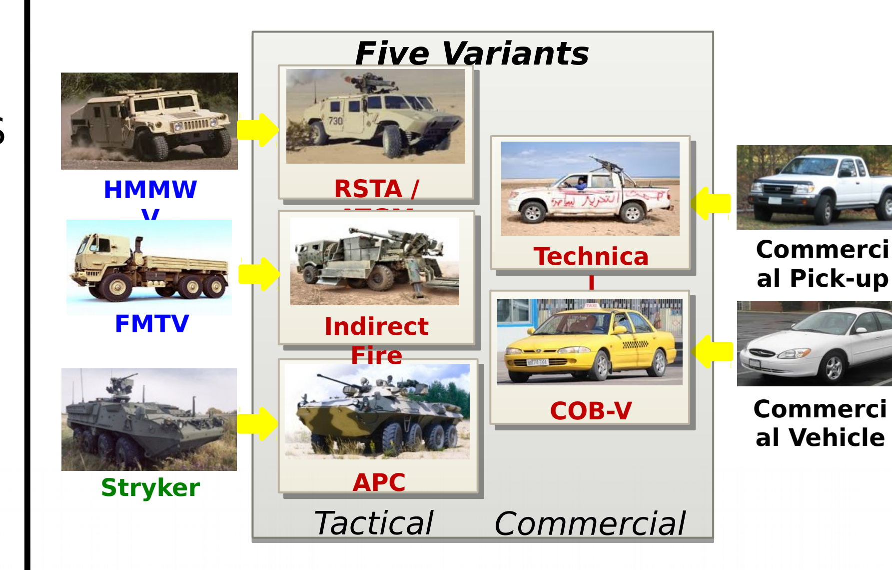
- New procurement



OPFOR Surrogate Wheeled Vehicles (OSWV)

OSWV Overview

- OSWV will be composed of three components:
  - Tactical vehicles – use existing vehicles in the Army inventory
  - A visual modification – attaches hardware to US tactical vehicles to visually represent enemy
  - Tactical Engagement Simulation Systems (TESS). The TESS, fielded by PM TRADE, provides the ability to shoot and be shot, with lasers, in a training environment
- Used as a training aid to portray threat vehicle
  - Tactical – e.g., Stryker (portrayal of Russian armored personnel transporter)
  - Technical – e.g., Toyota truck with .50 caliber mounted
  - Civilian on the Battlefield vehicles (COB-V) – e.g., civilian driven vehicle (sedan painted like taxi)



OPFOR Vehicle	Vehicle	NTC		JRTC		JMRC		Total		Total
		IOC Quantities	FOC Quantities	IOC Quantities	FOC Quantities	IOC Quantities	FOC Quantities	IOC Quantities	FOC Quantities	
ATGM/RSTA	HMMWV	4	9	0	13	0	13	4	35	
Indirect Fire	LMTV	2	2	0	4	0	4	2	10	
APC	Stryker	14	0	0	14	0	14	14	28	
Technical	Commercial	11	27	0	38	0	38	11	103	
COB-V	Commercial	13	37	0	50	0	50	13	137	
Total		44	75	0	119	0	119	44	313	357



Abrams Engine Diagnostic and Troubleshooting Trainer (ED/TT)

Description/Summary of Program Requirements

Anticipate a new acquisition for an upgrade of the existing Abrams M1A1 Engine Trainers at Ft. Benning, GA., Ft. Lee, VA., and Gowen Field, ID., to the M1A2 SEPv2 configuration. The Engine Diagnostic and Troubleshooting Trainers (ED/TTs) are required to support the Program of Instruction (POI) for the 91A, 913A and 915A Military Occupational Specialties (MOSs). The ED/TT will provide training in diagnostic and troubleshooting tasks of the Abrams M1A2 SEPv2 Engine and associated electronics, cables and Line Replaceable Units (LRUs). The objective is for eleven (11) SEPv2 ED/TTs. Quantity of 2 FY17, 5 FY18 and 4 FY19.

ACQUISITION STRATEGY

- Acquisition Strategy: Full & Open
- Contract Vehicle: Stand Alone C
- Contract Type: FFP

PERIOD OF PERFORMANCE

- 3 Years

MILESTONES

3rd Qtr FY16	1st Qtr FY17	4th Qtr FY17
▲	△	△
SSN Release	RFP Releas e	Contrac t Award

POINT OF CONTACT

Organization: PM TRADE

Phone: (407) 380-5201

Email: usarmy.orlando.peo-stri.list.pm-training-devices@mail.mil

FUNDING

- Estimated Range: $7M - $17.5M

CURRENT CONTRACT/ORIGINAL DEVELOPER/OEM (IF RECOMPETE)

- New contract



Common Driver Trainer (CDT)

Description/Summary of Program Requirements

This new work will include continuation for all 5 current variants and 1 new variant of the CDT Variants. The goal is to develop a single software/hardware baseline that can meet the requirements of each variant, based on the Cab/Dash installed. Early estimates of requirements for this contract vehicle by variant are:

1. Stryker Variant (SV): 4 new Dual V Hull cabs along with 14 (1 IOS : 1 STS) System Tech Refresh (multiple sites)
2. Tank Variant (TV): 18 CDT TV (1:1) System Tech Refresh and Abrams Common Software Library and improved Drivers Integrated Display updates (Ft. Benning, GA)
3. Tank Engineering Variant (TEV): Update of Joint Assault Bridge interface hardware, software along with 3 (1:2) CDT TEV systems Tech Refresh (Ft Leonard Wood, MO)
4. MRAP Variant (MV): 14 (1:1) CDT MV System Tech Refreshes (multiple sites)
5. Tactical Wheel Variant (TWV): Build to Print 18 (1:4) New CDT TWV Systems (Ft Leonard Wood, MO)
6. Joint Light Tactical Variant (JLTV): 8 Cabs and 35 dashboards (Location - TBD)

* Sustainment of the CDT Systems will be accomplished through War Fighter Focus sustainment contracts.

ACQUISITION STRATEGY

- Acquisition Strategy: Full & Open
- Contract Vehicle: Stand Alone C
- Contract Type: ID/IQ

PERIOD OF PERFORMANCE

- 5 years

MILESTONES

TBD	TBD	TBD
△	△	△
SSN Release	RFP Releas e	Contra ct Award

POINT OF CONTACT

Organization: PM TRADE

Phone: (407) 380-5201

Email: usarmy.orlando.peo-stri.list.pm-training-devices@mail.mil

FUNDING

- Estimated at: $52.7M

CURRENT CONTRACT/ORIGINAL DEVELOPER/OEM (IF RECOMPETE)

- Current Contract: None, EFO CPFF/FFP in process
- Original Developer: SAIC



Common Driver Trainer (CDT) Product Line



STRYKER VARIANT (SV) REQUIREMENTS



MRAP VARIANT (MV) REQUIREMENTS



TANK VARIANT (TV) REQUIREMENTS



TANK ENGINEER VARIANT (TEV) REQUIREMENTS



TACTICAL WHEEL VARIANT (TWV) REQUIREMENTS

20% Variant Specific Parts

Stryker Variant (SV):
- Vehicle Cab & Dashboard
- Vehicle Dynamics
- Specialized Scoring
- 1 Instructor to 1 Student configuration

MRAP Variant (MV):
- Vehicle Cab & Dashboard
- Vehicle Dynamics
- Specialized Scoring
- 1 Instructor to 1 Student configuration

Tank Variant (TV):
- Vehicle Cab & Dashboard
- Vehicle Dynamics
- Specialized Scoring
- 1 Instructor to 1 Student configuration

Tank Engineer Variant (TEV):
- Vehicle Cab & Dashboard
- Vehicle Dynamics
- Specialized Scoring
- Tank Commander Station
- 1 Instructor to 2 Student configuration

Tactical Wheel Variant (TWV):
- Vehicle Cab & Dashboard
- Vehicle Dynamics
- Specialized Scoring
- Assistant Driver station
- 1 instructor to 4 Students configuration

80% CDT Common Elements Across All CDT Variants

- 6 Degrees of Motion
- Instructor/Operator Station
- After Action Review Station
- Databases
- Displays
- Image Generators
- Projectors
- Computers
- Common Scoring Features
- Reconfigurable
- Scenario Generation
- Common Data Server
- Class Manager

<u>Common components/reuse</u>
- **Common Training**
- **Instructor and Maintenance procedures**
- **User and Operator Manuals**
- **Testing/troubleshooting**
- **Diagrams/drawings**



Joint Light Tactical Vehicle (JLTV) Maintenance Training System (MTS)

Description/Summary of Program Requirements

Anticipate a new acquisition for JLTV. The JLTV MTS will consist of Diagnostic Troubleshooting Trainers (DTTs) and Hands On Trainers (HOTs) that will support the Program of Instruction (POI) for the 91B Military Occupational Specialty (MOS). These training devices are expected to provide training in diagnostic, troubleshooting, remove and replace tasks of the JLTV vehicle. Key areas for training include the vehicle electrical system, drive train, suspension, along with a distributed training capability. Quantities are estimated at 59 each pending additional analysis.

ACQUISITION STRATEGY

- Acquisition Strategy: Full & Open
- Contract Vehicle: Stand Alone C
- Contract Type: CPI/FPI

PERIOD OF PERFORMANCE

- 5 Years

MILESTONES

1st Qtr FY17	3rd Qtr FY17	TBD
△	△	△
RFI Release	RFP Releas e	Contract Award

POINT OF CONTACT

Organization: PM TRADE

Phone: (407) 380-5201

Email: usarmy.orlando.peo-stri.list.pm-training-devices@mail.mil

FUNDING

- Estimated $98.8M

CURRENT CONTRACT/ORIGINAL DEVELOPER/OEM (IF RECOMPETE)

- New contract



Stryker Maintenance Trainer System (MTS) Ph

Description/Summary of Program Requirements

The Stryker MTS is designed to teach troubleshooting and remove/replace tasks to the 91S, Stryker System Mechanic Military Occupational Skill (MOS).

Enhance the capabilities of the current system by converting remaining Diagnostic Troubleshooting Trainer (DTT) lessons to 3D graphics and development of hands on trainers for the Stryker Remote Weapon Station (RWS), Mortar Carrier (MC), Anti-Tank Guided Missile ATGM), Mobile Gun System (MGS) vehicles and a C7 Engine trainer. This must be accomplished through the reuse of the existing system architecture, software design, functionality, User and Instructor/Operator (I/O) interfaces and capabilities to select lessons from the Training Task List (TTL).

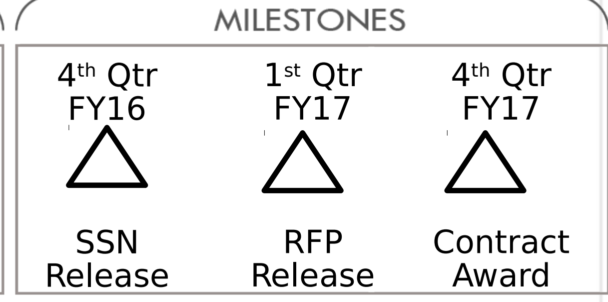
ACQUISITION STRATEGY

- Acquisition Strategy: Full & Open
- Contract Vehicle: Stand Alone C
- Contract Type: CPI/FFP

PERIOD OF PERFORMANCE

- 5 Years

MILESTONES



POINT OF CONTACT

Organization: PM TRADE

Phone: (407) 380-5201

Email: usarmy.orlando.peo-stri.list.pm-training-devices@mail.mil

FUNDING

- Estimated $61M

CURRENT CONTRACT/ORIGINAL DEVELOPER/OEM (IF RECOMPETE)

- Current Contract Phase IV: DiSTI
- Original Equipment Manufacturer: Rockwell Collins



Joint Readiness Training Center Instrumentation System - Land Expansion

Description/Summary of Program Requirements

Provide instrumentation system (IS) coverage in the JRTC Land Expansion area to support the JRTC Operations Group in the generation and execution of After Action Reviews (AARs).

All solutions must seamlessly integrate with the existing systems of the IS.

All construction in the Land Expansion area must comply with the appropriate National Environmental Protection Act (NEPA) provisions.

ACQUISITION STRATEGY

- Acquisition Strategy: Full & Open
- Contract Vehicle: Stand Alone C
- Contract Type: TBD

PERIOD OF PERFORMANCE

- 1 year base & 2 option years

MILESTONES

June 16	TBD	TBD
△	△	△
RFI Release	RFP Release	Contract Award

POINT OF CONTACT

Organization: PM TRADE

Phone: (407) 380-5201

Email: usarmy.orlando.peo-stri.list.pm-training-devices@mail.mil

FUNDING

- Estimated $25M

CURRENT CONTRACT/ORIGINAL DEVELOPER/OEM (IF RECOMPETE)

- New Procurement



Joint Readiness Training Center Instrumentation System - Land Expansion

The capabilities that will be extended into the Land Expansion area are:

- The Range Communication System (RCS) infrastructure consisting of cell tower sites and a Fiber Optic Network (FON) connecting to the Data Center (DC) at the Joint Operations Center (JOC). The DC will be able to integrate and facilitate the data from FON expansion.
- The JRTC Aviation Network Infrastructure (ANI) network at the JRTC to support the aviation training.
- The Voice Tactical Monitoring (VTM) system at the JRTC to support recording of voice traffic from SINCGAR radios.
- The Microwave (MW) data transfer system for the movement of After Action Reviews (AAR) and other data to/from the Mobile Production Centers (MPC).





Mobile Production Center (MPC)

Description/Summary of Program Requirements

Tech Refresh of the Joint Readiness Training Center (JRTC) Mobile Production Center (MPC), which is comprised of a Mobile After Action Review (MAAR) Theater, Mobile Production Unit (MPU) and a trailer-mounted electrical power generator and microwave set (Power and Antenna Trailer (PAT)).

ACQUISITION STRATEGY

- Acquisition Strategy: Full & Open
- Contract Vehicle: STOC II
- Contract Type: FFP

PERIOD OF PERFORMANCE

- 18 Months

MILESTONES

Jul 15	Nov 15	3rd Qtr FY16	1st Qtr FY17
▲	▲	△	△
SSN Release	Industry Day	RFP Release	Contract Award

POINT OF CONTACT

Organization: PM TRADE

Phone: (407) 380-5201

Email: usarmy.orlando.peo-stri.list.pm-training-devices@mail.mil

FUNDING

- Estimated $4.5M

CURRENT CONTRACT/ORIGINAL DEVELOPER/OEM (IF RECOMPETE)

- New Procurement



Near Term Programmatic Impact Areas

- **Logistics (Property Accountability) –** Continued emphasis on component and end item inventory listings to support transfer to gaining installations/commands.
- **Cyber Security (RMF) –** Growing emphasis on safeguarding our systems and networks.
- **Lighthouse Effort (Data Driven)** – Standardizing and digitizing our Tech Data Package and Logistics Product Data to Catalogue/reuse that data to eliminate redundancy and automate document production.
- **Multinational Interoperability –** The composition of the Brigade Combat Team formation has evolved to include coalition partner formations; we are looking for opportunities to mitigate training challenges with those conditions.
- **Public Private Partnerships (PPP) –** Actively exploring opportunities to leverage the Army's organic industrial base to support TADSS development, production and/or sustainment.



PM TRADE Business Goals

- Reduce operational costs and complexity
- Align and support product development (common standards, interfaces, etc.)
- Enhance soldier training
- Reduce sustainment and development costs
- Increase technology agility
- Leverage other Army systems and Commercial Off the Shelf (COTS) technologies
- Align to the Army COE, mobile computing, and distributed computing strategies



LT2 Portal

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